



Document Control No.: 4200-16-ACXY

## CONFIDENTIAL - NOT FOR PUBLIC RELEASE

### SITE SUMMARY

The Metem Corporation (Metem) site is located in an industrial area approximately 0.5 mile southeast of Lake Parsippany in Parsippany, Morris County, New Jersey (Ref. Nos. 14, 21). Figures 1 and 2 provide a Site Location Map and Site Map, respectively. Metem is a contract metalwork machining facility which manufactures nontraditional aerospace hardware and a wide variety of metal objects for large corporations such as General Electric, Westinghouse, and various airlines. Specific types of machining practiced by Metem include electrochemical, electrical discharge, and conventional (Ref. No. 7, p. 7). The facility, which is approximately 7.4 acres in size, commenced operations in Parsippany in 1968 (Ref. Nos. 9, p. 7; 25).

Metem operates a wastewater treatment plant within the facility. The treatment process involves acid neutralization and the filtration of heavy metals from the effluent produced by the electrochemical machining process (Ref. No. 9, p. 7). The wastewater is stored in two aboveground 5,500-gallon storage tanks prior to treatment and consists of water contaminated with sulfuric and nitric acids, chromium, cobalt, copper, and nickel. The metals are filtered out leaving a filter cake as an end product which is shipped off site for the reclamation of the abovementioned metals (Ref. No. 9, pp. 7, 31). After treatment all neutralized water is discharged to a publicly owned treatment works (POTW). Available background information indicates that the abovementioned 5,500-gallon storage tanks have spill containment with no history of leaks or spillage (Ref. Nos. 6, 9). Other areas of environmental concern include an outdoor drum storage area, and a container (30 cubic yard dumpster) used for the temporary storage of the filter cake (Ref. No. 9, p. 9).

The drum storage area measures approximately 20 feet by 60 feet in size and is located outdoors in the southwest area of the site. The containers in the drum storage area currently contain food-grade waste oils used in the electrical discharge machining process. These waste oils may be contaminated with trace amounts of chromium, cobalt, and copper (Ref. No. 9, pp. 7, 8, 15). The drum storage area was also used to store waste solvents (trichloroethane) generated by vapor degreasing activities (Ref. No. 1).

An inspection conducted by the New Jersey Department of Environmental Protection and Energy (NJDEPE) on June 6, 1984 revealed numerous violations on site including a spill in the drum storage area and a failure to file a Part A permit application (Ref. Nos. 1, 2). A followup inspection conducted by the NJDEPE on July 11, 1984 found that all waste oil drums in the hazardous waste storage area had been removed. Contaminated soils had been excavated and manifested off site for proper disposal. According to the inspector, the yard had been cleaned



up and no spills remained (Ref. No. 1). On January 2, 1985, Metem Corporation and the NJDEPE entered into an Administrative Consent Order which allowed Metem to continue operations while it continued to correct violations and improve its waste handling procedures (Ref. No. 2). A NJDEPE inspection report dated April 22, 1985 indicated that all violations concerning the waste units had been corrected, with the exception of a small deficiency in the contingency plan (Ref. No. 3). On September 15, 1988, the NJDEPE visited the site to determine whether Metem could be considered for exemption as a 90-day generator. The waste storage areas were found to be "clean and free from contamination", and Metem was subsequently approved for exemption under N.J.A.C. 7:26-9.3(b), accumulation of hazardous waste for 90 days or less in aboveground tanks, on December 21, 1988 (Ref. Nos. 5, 7). There are no known enforcement actions pending against Metem Corporation.

Roy F. Weston, Inc. personnel conducted an inspection of the facility on January 28, 1993, during which five soil, four sediment, and three surface water samples were collected. Analysis of the sediment samples indicate the presence of chromium, cobalt, and nickel at levels well above (13 to 17 times) background. These same metals were also found in soil collected from near the drum storage area at levels ranging from 37 to 327 times higher than those found in samples designated as representative of background for the site. Acetone, 2-butanone, trichloroethane, and tetrachloroethene were also quantified (at estimated levels) in a downstream sediment sample but were not detected upstream. Analysis of a sediment sample collected from a palustrine wetland revealed the presence of chromium at a concentration almost five times higher than background (Ref. No.20). Relatively low concentrations of 1,1-dichloroethane, 2-butanone, 1,1,1-trichloroethane, ethylbenzene, and xylenes were found in on-site soil (Ref. No. 20). These may be attributable to the previous spill observed in the drum storage area in 1984 or subsequent spills which may have occurred on site (Ref. No. 1). No nonpalustrine wetlands, fisheries or surface water intakes are located within 15 miles downstream of the site (Ref. Nos. 16, 18). Furthermore, the immediate vicinity of the site is sparsely populated and there are no schools, day care centers or residences nearby that could be affected by direct contact with contaminated soils on site. There is also no documented release of contaminants to groundwater in available background information; there are no monitoring wells on site (Ref. Nos. 9, p. 11; 12; 14).

PA score analysis was conducted, resulting in a site score of 55. Because this is above the cutoff score of 28.5, PRE score analysis was conducted, resulting in a site score of 29.38. Since this is above the cutoff score, and an actually contaminated wetland exists, a recommendation of **HIGHER PRIORITY FOR FURTHER ACTION** is given for the Metem Corporation site.

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- . Site Name: METEM CORPORATION  
(as entered in CERCLIS)
- . Site CERCLIS Number: NJD002139244
- . Site Reviewer: C. AGNEW
- . Date: 23 AUG 93
- . Site Location: PARSIPPANY, MORRIS, NJ  
(City/County, State)
- . Congressional District: 11
- . Site Coordinates: Single

Latitude: 40°50'43.

Longitude: 074°25'33.

	Score
Ground Water Migration Pathway Score (Sgw)	43.02
Surface Water Migration Pathway Score (Ssw)	40.00
Soil Exposure Pathway Score (Ss)	1.21
Air Migration Pathway Score (Sa)	0.35

Site Score	29.38
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NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: DRUM STORAGE AREA

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	5000.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	1.00E+00

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## WASTE QUANTITY

METEM CORPORATION - 05/25/95

## . SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		DRUM STORAGE AREA	
b. Source Type		Drums	
c. Secondary Source Type		N.A.	
d. Source Vol. (yd3/gal)	Source Area (ft2)	0.00	0.00
e. Source Volume/Area Value		0.00E+00	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		1.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		1.00E+00	

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. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: STORAGE TANKS

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

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## WASTE QUANTITY

METEM CORPORATION - 05/25/95

## 2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		STORAGE TANKS	
b. Source Type		Non-Drum Container	
c. Secondary Source Type		N.A.	
d. Source Vol. (yd3/gal)	Source Area (ft2)	55.00	0.00
e. Source Volume/Area Value		2.20E+01	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		2.20E+01	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Chromium	< 2	NO	0.0E+00	ppm
Cobalt	< 2	NO	0.0E+00	ppm
Copper	< 2	NO	0.0E+00	ppm
Nickel	< 2	NO	0.0E+00	ppm
Nitric acid	< 2	NO	0.0E+00	ppm
Sulfuric acid	< 2	NO	0.0E+00	ppm

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L. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: FILTER CAKE DUMP SI

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

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## WASTE QUANTITY

METEM CORPORATION - 05/25/95

## 2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		FILTER CAKE DUMP SI	
b. Source Type		Non-Drum Container	
c. Secondary Source Type		N.A.	
d. Source Vol.(yd3/gal)	Source Area (ft2)	30.00	0.00
e. Source Volume/Area Value		1.20E+01	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		1.20E+01	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Chromium	< 2	NO	0.0E+00	ppm
Cobalt	< 2	NO	0.0E+00	ppm
Copper	< 2	NO	0.0E+00	ppm
Nickel	< 2	NO	0.0E+00	ppm

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## WASTE QUANTITY

METEM CORPORATION - 05/25/95

## 3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	DRUM STORAGE AREA	GW-SW-SE-A	0.00E+00	1.00E+00	1.00E+00
2	STORAGE TANKS		2.20E+01	0.00E+00	2.20E+01
3	FILTER CAKE DUMP SI	GW-SW-SE-A	1.20E+01	0.00E+00	1.20E+01

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4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values	HWQVs*	WCVs**
Ground Water	Toxicity/Mobility 1.00E+02	10	6
SW: Overland Flow, DW	Tox./Persistence 1.00E+04	100	32
SW: Overland Flow, HFC	Tox./Persis./Bioacc. 5.00E+06	100	100
SW: Overland Flow, Env	Etox./Persis./Bioacc. 5.00E+06	100	100
SW: GW to SW, DW	Tox./Persistence 1.00E+02	10	6
SW: GW to SW, HFC	Tox./Persis./Bioacc. 5.00E+04	10	18
SW: GW to SW, Env	Etox./Persis./Bioacc. 5.00E+04	10	18
Soil Exposure:Resident	Toxicity 1.00E+04	10	18
Soil Exposure: Nearby	Toxicity 1.00E+04	10	18
Air	Toxicity/Mobility 2.00E+00	10	2

\* Hazardous Waste Quantity Factor Values

\*\* Waste Characteristics Factor Category Values

Note: SW = Surface Water  
GW = Ground Water  
DW = Drinking Water Threat  
HFC = Human Food Chain Threat  
Env = Environmental Threat

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GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: GLACIAL DEPOSITS		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	460
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+02
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	6
Targets		
7. Nearest Well	50	5.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	1.28E+03
8d. Population (lines 8a+8b+8c)	**	1.28E+03
9. Resources	5	0.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	1.29E+03
12. Targets (including overlaying aquifers)	**	1.29E+03
13. Aquifer Score	100	43.02
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	43.02

\* Maximum value applies to waste characteristics category.  
\*\* Maximum value not applicable.

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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	550
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	1
2c. Distance to Surface Water	25	16
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	170
3. Potential to Release by Flood		
3a. Containment (Flood)	10	0
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0
4. Potential to Release (lines 2d+3c)	500	170
5. Likelihood of Release	550	550
Waste Characteristics		
6. Toxicity/Persistence	*	1.00E+04
7. Hazardous Waste Quantity	*	100
8. Waste Characteristics	100	32
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	0.00E+00
12. Targets (lines 9+10d+11)	**	0.00E+00
13. DRINKING WATER THREAT SCORE	100	0.00

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	550
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	5.00E+06
16. Hazardous Waste Quantity	*	100
17. Waste Characteristics	1000	100
Targets		
18. Food Chain Individual	50	0.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	0.00E+00
19d. Population (lines 19a+19b+19c)	**	0.00E+00
20. Targets (lines 18+19d)	**	0.00E+00
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

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GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release to Aquifer Aquifer: GLACIAL DEPOSITS		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	460
Waste Characteristics		
4. Toxicity/Mobility/Persistence	*	1.00E+02
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	6
Targets		
7. Nearest Intake	50	0.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	0.00E+00
8d. Population (lines 8a+8b+8c)	**	0.00E+00
9. Resources	5	0.00E+00
10. Targets (lines 7+8d+9)	**	0.00E+00
11. DRINKING WATER THREAT SCORE	100	0.00

\* Maximum value applies to waste characteristics category.  
\*\* Maximum value not applicable.

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GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
12. Likelihood of Release (same as line 3)	550	460
Waste Characteristics		
13. Toxicity/Mobility/Persistence/Bioacc.	*	5.00E+04
14. Hazardous Waste Quantity	*	10
15. Waste Characteristics	1000	18
Targets		
16. Food Chain Individual	50	0.00E+00
17. Population		
17a. Level I Concentrations	**	0.00E+00
17b. Level II Concentrations	**	0.00E+00
17c. Pot. Human Food Chain Contamination	**	0.00E+00
17d. Population (lines 17a+17b+17c)	**	0.00E+00
18. Targets (lines 16+17d)	**	0.00E+00
19. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	550
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	5.00E+06
24. Hazardous Waste Quantity	*	100
25. Waste Characteristics	1000	100
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	2.50E+01
26c. Potential Contamination	**	3.50E+01
26d. Sensitive Environments (lines 26a+26b+26c)	**	6.00E+01
27. Targets (line 26d)	**	6.00E+01
28. ENVIRONMENTAL THREAT SCORE	60	40.00
29. WATERSHED SCORE	100	40.00
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	40.00

\* Maximum value applies to waste characteristics category.  
 \*\* Maximum value not applicable.

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GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
20. Likelihood of Release (same as line 3)	550	460
Waste Characteristics		
21. Ecosystem Tox./Mobility/Persist./Bioacc.	*	5.00E+04
22. Hazardous Waste Quantity	*	10
23. Waste Characteristics	1000	18
Targets		
24. Sensitive Environments		
24a. Level I Concentrations	**	0.00E+00
24b. Level II Concentrations	**	0.00E+00
24c. Potential Contamination	**	0.00E+00
24d. Sensitive Environments (lines 24a+24b+24c)	**	0.00E+00
25. Targets (line 24d)	**	0.00E+00
26. ENVIRONMENTAL THREAT SCORE	60	0.00
27. WATERSHED SCORE	100	0.00
28. SW: GW to SW COMPONENT SCORE (Sgs)	100	0.00

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

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SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	10
4. Waste Characteristics	100	18
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	1.00E+01
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	1.00E+01
11. RESIDENT POPULATION THREAT SCORE	**	9.90E+04

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

\*\*\* No specific maximum value applies, see HRS for details.

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SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	5.00E+00
13. Area of Contamination	100	5.00E+00
14. Likelihood of Exposure	500	5.00E+00
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	100	18
Targets		
18. Nearby Individual	1	1.00E+00
19. Population Within 1 Mile	**	4.00E+00
20. Targets (lines 18+19)	**	5.00E+00
21. NEARBY POPULATION THREAT SCORE	**	4.50E+02
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	1.21

\* Maximum value applies to waste characteristics category.  
 \*\* Maximum value not applicable.

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## AIR PATHWAY SCORESHEET

METEM CORPORATION - 05/25/95

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	0
2b. Particulate Potential to Release	500	200
2c. Potential to Release	500	200
3. Likelihood of Release	550	200
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+00
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	2
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	5.10E+01
8d. Population (lines 8a+8b+8c)	**	5.10E+01
9. Resources	5	0.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	1.00E+00
10c. Sens. Environments(lines 10a+10b)	***	1.00E+00
11. Targets (lines 7+8d+9+10c)	**	7.20E+01
AIR MIGRATION PATHWAY SCORE (Sa)	100	3.49E-01

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

\*\*\* No specific maximum value applies, see HRS for details.

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